

# Predicting Scholarly Impact using Altmetrics

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## ABSTRACT

Altmetrics are article level metrics, and are one of the growing areas of interest for investigating the quality of research output. The traditional scholarly and scientific metrics such as citations, h-index, and Journal Impact Factor (JIF) take a long time to accumulate as they need to go through the peer review process. As these metrics are hindering the overall research evaluation process. Research scholars and funding bodies are looking for alternative metrics which can serve as indicators of the good quality research and that become quickly available compared to traditional citations. Since social media channels and online reference managers are being increasingly used as a communication aids by various research scholars and science communicators, provided a new scope for evaluating the scholarly articles based on social media metrics. Social media metrics are very quick to accumulate in time compared to citation based metrics. In our work we aimed at predicting citations counts well ahead of time for various research articles based on their social media metrics using various statistical and machine learning regression models. Random Forest Regressor has outperformed other models with MSE of 1.46 and R-squared measure of 0.46.

## KEYWORDS

Altmetrics, Scientometrics, Scholarly Communication, Social Media

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